

**WHAT IS CLAIMED IS:**

1           1. A process for preparing a porous bioresorbable material  
2           having interconnected pores, comprising the following steps:

3           dissolving a bioresorbable polymer and a low molecular  
4           weight oligomer in an organic solvent to form a bioresorbable  
5           polymer solution, wherein the bioresorbable polymer has a  
6           molecular weight greater than 20,000, and the oligomer has  
7           a molecular weight of 200 to 4000; and

8           contacting the bioresorbable polymer solution with a  
9           coagulant to form the porous bioresorbable material, wherein  
10          the low molecular weight oligomer is soluble in the coagulant,  
11          and the bioresorbable polymer is insoluble in the coagulant.

12          1. The process as claimed in claim 1, wherein, before the  
13          bioresorbable polymer solution is contacted with the  
14          coagulant, the solution is caused to have a predetermined  
15          shape.

16          2. The process as claimed in claim 2, wherein the step of  
17          causing the solution to have a predetermined shape comprises  
18          coating the solution onto a mold surface.

19          3. The process as claimed in claim 2, wherein the step of  
20          causing the solution to have a predetermined shape comprises  
21          pouring the solution into a container.

22          4. The process as claimed in claim 1, wherein the  
23          bioresorbable polymer has a molecular weight of 20,000 to  
24          300,000.

1           6. The process as claimed in claim 1, wherein the  
2     bioresorbable polymer is selected from the group consisting  
3     of polycaprolactone (PCL), polylactic acid (PLA),  
4     polyglycolic acid (PGA), poly-lactic-co-glycolic acid  
5     copolymer (PLGA copolymer), polycaprolactone-polylactic  
6     acid copolymer (PCL-PLA copolymer), polycaprolactone-  
7     polyethylene glycol copolymer (PCL-PEG copolymer), and  
8     mixtures thereof.

1           7. The process as claimed in claim 1, wherein the low  
2     molecular weight oligomer has a molecular weight of 300 to  
3     3000.

1           8. The process as claimed in claim 1, wherein the low  
2     molecular weight oligomer is selected from the group  
3     consisting of polycaprolactone triol (PCLTL),  
4     polycaprolactone diol (PCLDL), polycaprolactone (PCL),  
5     polylactic acid (PLA), polyethylene glycol (PEG),  
6     polypropylene glycol (PPG), polytetramethylene glycol  
7     (PTMG), and mixtures thereof.

1           9. The process as claimed in claim 1, wherein the organic  
2     solvent for dissolving the bioresorbable polymer and low  
3     molecular weight oligomer is selected from the group  
4     consisting of N,N-dimethylformamide (DMF), N,N-  
5     dimethylacetamide (DMAc), THF, alcohols, chloroform, 1,4-  
6     dioxane, and mixtures thereof.

1           10. The process as claimed in claim 1, wherein the  
2     bioresorbable polymer is present in an amount of 5-50% weight  
3     fraction of the bioresorbable polymer solution.

1 11. The process as claimed in claim 10, wherein the  
2 bioresorbable polymer is present in an amount of 10-40% weight  
3 fraction of the bioresorbable polymer solution.

1 12. The process as claimed in claim 1, wherein the low  
2 molecular weight oligomer is present in an amount of 10-80%  
3 weight fraction based on the non-solvent portion of the  
4 bioresorbable polymer solution.

1 13. The process as claimed in claim 1, wherein the  
2 coagulant includes water and an organic solvent.

1 14. The process as claimed in claim 13, wherein the organic  
2 solvent in the coagulant is present in an amount of 5-60%  
3 weight fraction.

1 15. The process as claimed in claim 13, wherein the organic  
2 solvent in the coagulant is selected from the group consisting  
3 of amides, ketones, alcohols, and mixtures thereof.

1 16. The process as claimed in claim 15, wherein the organic  
2 solvent in the coagulant includes a ketone and an alcohol.

1 17. The process as claimed in claim 1, wherein the step  
2 of contacting the bioresorbable polymer solution with a  
3 coagulant is performed at a temperature of 5°C to 60°C.

1 18. The process as claimed in claim 17, wherein the step  
2 of contacting the bioresorbable polymer solution with a  
3 coagulant is performed at a temperature of 10°C to 50°C.

1           19. The process as claimed in claim 1, wherein after the  
2       bioresorbable polymer solution contacts the coagulant, the  
3       porous bioresorbable material is washed in a washing liquid.

1           20. The process as claimed in claim 19, wherein the washing  
2       liquid includes water and an organic solvent, wherein the  
3       organic solvent in the washing liquid is selected from the  
4       group consisting of ketones, alcohols, and mixtures thereof.

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